

## RFC2K THRU RFC4K

### 0.2AMPS. HIGH VOLTAGE FAST RECOVERY RECTIFIERS

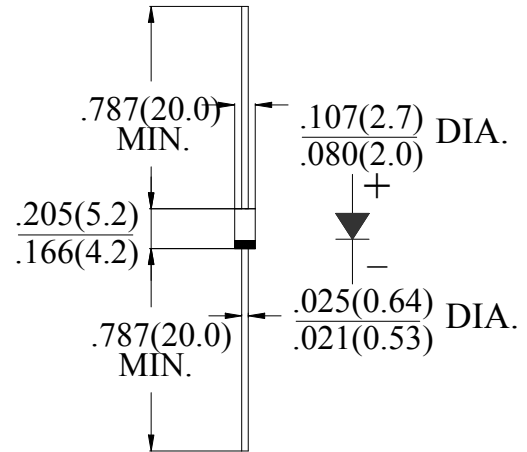
#### FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability
- High voltage

#### MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: MIL-STD- 202E, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.33 grams

#### DO-41



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	SYM BOL	RFC2K	RFC3K	RFC4K	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	2000	2400	3000	V
Maximum RMS Voltage	$V_{RMS}$	1400	1680	2100	V
Maximum DC Blocking Voltage	$V_{DC}$	2000	2400	3000	V
Maximum Average Forward rectified Current at $T_A=50^\circ\text{C}$	$I_{F(AV)}$	0.2			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	30			A
Maximum Instantaneous forward Voltage at 0.2A DC	$V_F$	4.0	5.0	6.5	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	$I_R$	5.0			$\mu\text{A}$
Maximum Full Load Reverse Current Average Full Cycle .375"(9.5mm) lead length at $T_L=55^\circ\text{C}$		100			
Maximum Reverse Recovery Time (Note )	$T_{RR}$	500			nS
Storage Temperature	$T_{STG}$	-55 to +150			$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +125			$^\circ\text{C}$

#### Note:

Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

**RATING AND CHARACTERISTIC CURVES (RFC2K THRU RFC4K)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

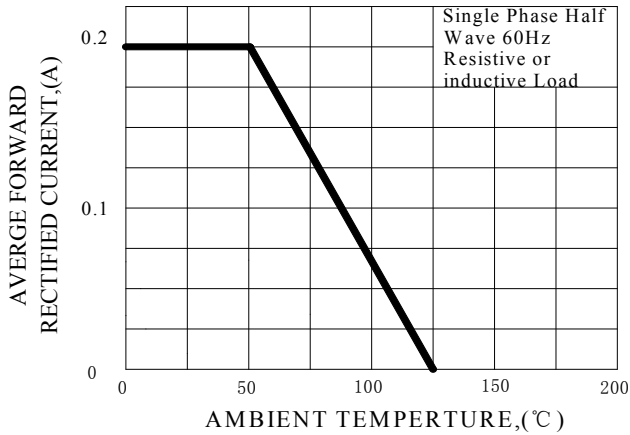


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

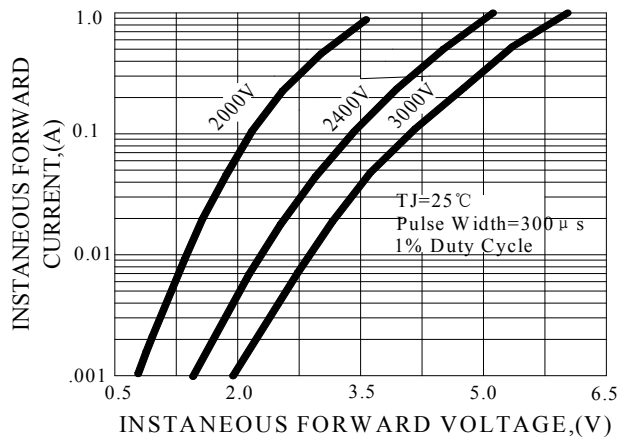


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

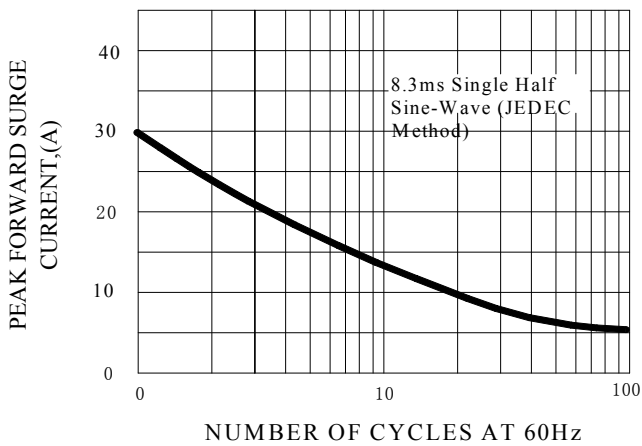


FIG.4-TYPICAL REVERSE CHARACTERISTICS

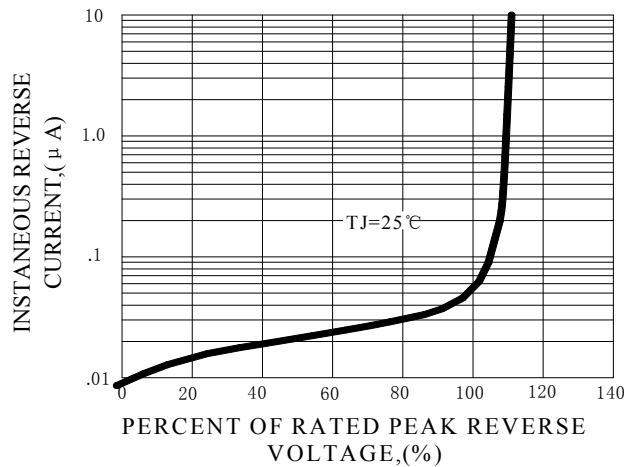
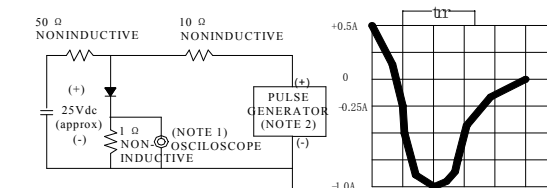


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1. Rise Time=7ns max, Input Impedance= 1 megohm,22pF.  
2. Rise Time=10ns max, Source Impedance= 50 ohms.